

Changes in mismatch negativity during hypnosis as an indicator of susceptibility to both hypnosis and to paranormal experiences

Results:

We examined the relation between hypnotic susceptibility and schizotypal unreality experiences. In the first study (Jamieson & Gruzelier, 2001), of the 15 schizotypy items associated with the Harvard HGSHS, 5 belonged to the unreality scale, 8 to cognitive activation and 2 to withdrawal. In a replication with the cognitively loaded Stanford SSSS, Form C, 9/12 items were associated with unreality and 3 cognitive activation. Of the 9 unreality items 6 concerned extra sensory perception in support of hypotheses. Subsequently students volunteering for stress reduction training were examined with the HGSHS. Here only 2 items involved unreality, 4 activation, while 8 were withdrawn items. Clearly while a relation with schizotypy was a consistent feature of the three studies, relations with unreality depended on the nature of the volunteer sample and on the features of hypnotisability examined, motoric versus cognitive, the latter showing strong relations with extrasensory perception (Gruzelier et al, 2004).

In two experiments mismatch negativity waveform (MMN) was examined for possible influences of hypnosis and susceptibility on early stages of auditory processing. In one experiment hypnotisable participants showed evidence of more efficient processing of attended stimuli while unhypnotisable subjects showed evidence of distraction, in support of theory. In the second experiment MMN increased with hypnosis independent of hypnotisability, while it was only following hypnosis that the groups were differentiated. Our hypothesis that MMN would be altered by hypnosis was not supported (Jamieson et al, 2004).

Published Work:

Jamieson, G. and Gruzelier, J.H. (2001) Hypnotic susceptibility is positively related to a subset of schizotypy items. *Contemporary Hypnosis*, 18, 32-37.

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Gruzelier, J. H., De Pascalis, V., Jamieson, G., Laidlaw, T., Dwivedi, P., Naito, A., Bennett, B., & Gruzelier, J. H. (2004). Relations between hypnotisability and psychopathology revisited. *Contemporary Hypnosis*, 21(4), 169–176. doi: 10.1002/ch.304

Gruzelier, J.H. (2004) Speculative and rediscovered insights about the nature of hypnotisability. *American Journal of Clinical Hypnosis*, under review.

Jamieson, G., Dwivedi, P, Gruzelier, J.H. (2005) Changes in mismatch negativity across pre-hypnosis, hypnosis and post-hypnosis conditions distinguish high from low hypnotic susceptibility groups. *Brain Research Bulletin*, 67, 298-303.

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